PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:

G06F 13/00, H04M 7/00

(11) International Publication Number:

WO 99/54826

A1

(43) International Publication Date:

28 October 1999 (28.10.99)

(21) International Application Number:

PCT/FI99/00285

(22) International Filing Date:

6 April 1999 (06.04.99)

(30) Priority Data:

980778

3 April 1998 (03.04.98)

FI

(71) Applicant (for all designated States except US): NOKIA TELECOMMUNICATIONS OY [FI/FI]; P.O. Box 300, FIN-00045 Nokia Group (FI).

(72) Inventor; and

(75) Inventor/Applicant (for US only): HAMBERG, Max [FI/FI]; Lupajantie 1 A 2, FIN-00970 Helsinki (FI).

(74) Agent: PAPULA REIN LAHTELA OY; Fredrikinkatu 61 A, P.O. Box 981, FIN-00101 Helsinki (FI).

(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

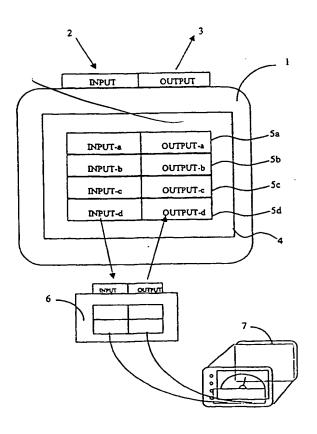
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

In English translation (filed in Finnish).

(54) Title: IMPLEMENTING A TECHNICAL SOFTWARE APPLICATION IN A MOBILE COMMUNICATION SYSTEM

(57) Abstract

The procedure and system of the invention are used to implement a technical application from which all uncontrolled internal interdependencies have been eliminated. The functional assemblies contained in the application are normalised so that the input data of each functional assembly unambiguously and alone determines the output data produced by the assembly. Further, according to the invention, the elements contained in the functional assemblies are normalised so that the input data of the elements unambiguously and alone determines the output data. There may be one or more elements or functional assemblies. Further, a functional assembly may form other functional assemblies. In an embodiment of the invention, the application implemented is a part of a telephone exchange software application in which the functional assemblies and elements are of an algorithmically processing type.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	Fi	Finland	LT	Lithuania	SK	Slovakia
ΑT	Austria	FR	France	LU	Luxembourg	SN	Senegal
ΑU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
ΑZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	ΙE	Ircland	MN	Mongolia	ÜA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	us	United States of Americ
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Сопдо	KE	Kenya	NL	Netherlands	YU	Yugoslavia
СН	Switzerland	KG	Kyrgyzstan	NO	Norway	zw	Zimbabwe
CI .	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand	2,,	202040
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
E	Germany	LI.	Liechtenstein	SD	Sudan		
K	Denmark	LK	Sri Lanka	SE	Sweden		
ΕE	Estonia	LR	Liberia	SG	Singapore		

į.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 99/00285

A CLAS	SIFICATION OF SUBJECT MATTER		
A. CLAS	SILICATION OF SUBJECT MATTER		
	G06F 13/00, H04M 7/00 to International Patent Classification (IPC) or to both	national classification and IPC	
	OS SEARCHED	ha la Zani a a la	
Minimum	documentation searched (classification system followed	by classification symbols)	
IPC6:	G06F, H04M		
Documenta	tion searched other than minimum documentation to t	he extent that such documents are included in	n the fields searched
SE,DK,	FI,NO classes as above		
Electronic d	lata base consulted during the international search (nam	ne of data base and, where practicable, search	i terms used)
WPI, E	DOC		
C. DOCU	MENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.
A	US 5471393 A (JOE BOLGER), 28 N (28.11.95), abstract	lovember 1995	1-9,11-19
A .	 US 5778375 A (STEPHEN C. HECHT) (07.07.98), abstract 	, 7 July 1998	1-9,11-19
A	US 5870460 A (PAUL D. LITZENBER 9 February 1999 (09.02.99),	GER), abstract	10
			ł
·			
Furthe	r documents are listed in the continuation of Bo	x C. X See patent family annex	
"A" documer	categories of cited documents: It defining the general state of the art which is not considered particular relevance.	"I" later document published after the inter date and not in conflict with the applic the principle or theory underlying the i	ation but cited to understand
"E" erlier do "L" documen cited to e	cument hut published on or after the international filing date it which may throw doubts on priority claim(s) or which is establish the publication date of another citation or other	"X" document of particular relevance: the c considered novel or cannot be consider step when the document is taken alone	laimed invention cannot be ed to involve an inventive
"O" documen means	cason (as specified) t referring to an oral disclosure, use, exhibition or other t published prior to the international filing date but later than	"Y" document of particular relevance; the c considered to involve an inventive step combined with one or more other such heing obvious to a person skilled in the	when the document is documents, such combination
	ly date claimed	"&" document member of the same patent for	amily
Date of the	actual completion of the international search	Date of mailing of the international se	•
14 Sept		2 0 -09- 199	9
Vaine and n	nailing address of the ISA/	Authorized officer	

INTERNATIONAL SEARCH REPORT

Information on patent family members

30/08/99

International application No.

PCT/FI 99/00285

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 547139	3 A .	28/11/95	NONE	
US 577837	5 A	07/07/98	NONE	
US 587046	0 A	09/02/99	NONE	